CLAIMS

1 - An inkjet recording element, comprising a support and at least one ink-receiving layer, wherein

said support comprises a base polyester layer and a porous ink-permeable upper polyester layer, said upper polyester layer comprising a continuous polyester phase having an ink absorbency rate resulting in a dry time of less than 10 seconds and a total absorbent capacity of at least 14 cm^3/m^2,

said ink-receiving layer comprises at least one aluminosilicate polymer obtainable by a preparation method comprising the following steps:

a) treating a mixed aluminum and silicon alkoxide only comprising hydrolyzable functions, or a mixed aluminum and silicon precursor resulting from the hydrolysis of a mixture of aluminum compounds and silicon compounds only comprising hydrolyzable functions, with an aqueous alkali, in the presence of silanol groups, the aluminum concentration being maintained at less than 0.3 mol/l, the Al/Si molar ratio being maintained between 1 and 3.6 and the alkali/Al molar ratio being maintained between 2.3 and 3;

b) stirring the mixture resulting from step a) at ambient temperature in the presence of silanol groups long enough to form the aluminosilicate polymer; and

c) eliminating the byproducts formed during steps a) and b) from the reaction medium,

and said ink-receiving layer does not contain a binder.

2 - The recording element according to Claim 1, wherein the alkali of step a) to prepare the aluminosilicate polymer is selected from the group consisting of sodium, potassium, or lithium hydroxide, diethylamine and triethylamine.

3 - The recording element according to Claim 1, wherein the aluminum concentration used to prepare the aluminosilicate polymer is maintained between 1.5×10^{-2} and 0.3 mol/l.

4 - The recording element according to Claim 1, wherein the aluminum concentration used to prepare the aluminosilicate polymer is maintained between 4.4 x 10^{-2} and 0.3 mol/l.

5 - The recording element according to Claim 1, wherein said alkali/Al molar ratio to prepare the aluminosilicate polymer is about 2.3.

6 - The recording element according to Claim 1, wherein said alkali/Al molar ratio to prepare the aluminosilicate polymer is about 3.

7 - The recording element according to Claim 1, wherein the method for preparing the aluminosilicate polymer comprises, after step b) and before step c), a step d), by which alkali is added in order to reach an alkali/Al molar ratio of 3 if this ratio has not already been reached in step a).

8 - The recording element according to Claim 1, wherein the mixed aluminum and silicon precursor resulting from hydrolysis of a mixture of aluminum compounds and silicon compounds only having hydrolyzable functions is a product resulting from the mixture in an aqueous medium (i) of a compound selected from the group consisting of aluminum salts, aluminum alkoxides and aluminum halogenoalkoxides and (ii) at least one compound selected from the group consisting of silicon alkoxides and chloroalkoxides only having hydrolyzable functions.

9 - The recording element according to Claim 8, wherein said mixed aluminum and silicon precursor is the product resulting from the mixture (i) of an aluminum halide and (ii) a silicon alkoxide only having hydrolyzable functions.

10 - The recording element according to Claim 9, wherein said silicon alkoxide only having hydrolyzable functions is tetramethyl orthosilicate or tetraethyl orthosilicate.

11 - The recording element according to Claim 1, wherein said ink-receiving layer comprises at least 5 percent by weight of aluminosilicate polymer compared with the total weight of the dry receiving layer.

12 - The recording element according to Claim 1, wherein said base polyester layer comprises poly(ethylene terephthalate).

13 - The recording element according to Claim 1, wherein said continuous phase of polyester of said upper polyester layer comprises poly(ethylene terephthalate), poly(ethylene-1,4-cyclohexylenedimethylene terephthalate), or mixtures thereof.

14 - The recording element according to Claim 1, wherein said porous upper polyester layer comprises at least one voiding agent present in an amount of from 30 % to 50 % by volume of said upper layer.

15 - The recording element according to Claim 14, wherein said voiding agent is selected from the group consisting of fluoropolymers, silica, alumina, barium sulfate, calcium carbonate, polystyrene, poly(methyl methacrylate), polycarbonates, and polyolefines.

16 - The recording element according to Claim 14, wherein said voiding agent is between 0.1 μm and 10.0 μm in size.

17 - The recording element according to Claim 14, wherein said ink-permeable upper polyester layer has interconnecting voids.